

STATUS OF THE CLAIMS

Claims 1-28 were pending.

Claims 16-17 and 20 have been rejected under 35 U.S.C. § 112 as being indefinite.

Claims 1, 10-11, 13-18, 20-26 and 28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata, et al. (EP 0 784 970).

Claims 2-9, 12, 19 and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata, et al. (EP 0 784 970) in view of JP 11-236310.

Claims 1-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 11-236310 in view of Sajic, et al. (US 6,017,860).

Claims 1, 3, 5, 7-9, 16-17 and 24 have been amended.

Claims 2, 15 and 19 have been cancelled.

Claims 1-28 are presented for reconsideration.

REMARKS

Claims 16-17 and 20 have been rejected under 35 U.S.C. § 112 as being indefinite as they depend upon themselves. Applicants have corrected this typographical error such that claims 16 and 17 depend upon claims 11 and 16, respectively.

Claims 1, 3, 5, 7-9 and 24 have been amended to compositions in which the xanthan has been heat treated. Claims 2, 15, and 19 have been cancelled as being repetitive.

Claims 1, 10-11, 13-18, 20-26 and 28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata, et al. (EP 0 784 970). Shibata teaches a hair cosmetic composition containing an oxyalkylenized xanthan gum in combination with at least one component selected from an oxidizing agent, a reducing agent, a film-forming polymer, an oxidative dye or an acid dye. In contrast, the present invention discloses a hair cosmetic composition in which the fixative is a heat-treat xanthan. There is no teaching

or suggestion of a heat-treated xanthan in Shibata. Further, Shibata states that xanthan gum which is not chemically modified with oxyethylene does not work (see Field of Invention and Table 2). In contrast, the heat-treated xanthan gums of the present invention have excellent fixative ability and curl retention as shown for example in Table 1. Thus, the present invention is not obvious in view of Shibata.

Claims 18 and 20 are further not obvious in view of Shibata as Shibata disperses the xanthan in an organic solvent (e.g. ethanol, not simply water) as shown in the Shibata examples. Page 4 of Shibata simply states that a solution may be made of the xanthan gum in order to carry out the reaction.

Claims 23 and 28 are further not obvious in view of Shibata as Shibata neither teaches nor suggests that the xanthan gum may be used in a surfactant-free mousse.

Claims 2-9, 12, 19 and 27 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Shibata, et al. (EP 0 784 970) in view of JP 11-236310. The deficiencies of Shibata are detailed above. One skilled in the art would not combine Shibata and the JP reference as Shibata specifically states that the compositions will not work unless the xanthan gum is oxyalkenylized. As the JP reference does not teach that such oxyalkenylization is an option, the skilled artisan would not combine these references. Further, Shibata is directed to hair dyes and setting agents, neither of which are mentioned in the JP reference.

Claims 1-22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 11-236310 in view of Sajic, et al. (US 6,017,860).

JP 11-236310 discloses using specific heat-treated xanthan gums to provide cosmetics with excellent stability and feel (ie. non-greasy, non-sticky). The application does not exemplify the use of heat-treated xanthan gums in hair fixative compositions nor discloses that such xanthan would provide the fixative property or curl retention, claimed by the present invention.

Applicants submit that the xanthan gum present in the compositions of this prior art would not fix hair such that it would exhibit at least 80% curl

retention in view of the other ingredients present. To support such claim, Example 3 of JP 11-236310 was prepared and compared to the composition of the present application (see the enclosed Leighton Declaration). The experiment shows that the formulation of JP 11-236310 has only 34% curl retention. In contrast, the presently claimed compositions have over 80% curl retention as evidenced in Example 3 of the present application. Thus, it is clear that JP 11-236310 does not teach the use of xanthan gum in a hair fixative composition.

Sajic discloses a 3-in-1 shampoo; that is, a shampoo intended to wash, condition, and style hair. Such composition may optionally contain xanthan gum as a swellable polymeric thickening agent. See column 6, lines 47-53. Thus, the xanthan gum is added as a thickener for the shampoo, not as a hair fixative as in the current application.

This difference is emphasized by the mechanism of the shampoo and the examples. Starting at column 6, line 56, the shampoo mechanism is described in which it is stated that upon solubilization of the shampoo, the viscosity decreases (as the xanthan gum is water soluble, it washes away), releasing the surfactant monomers and anionic styling polymer to form a styling/conditioning polymer which adheres/attracts to the hair.

That the xanthan gum is washed away is also evidenced by the examples which do not contain "styling polymers," but contain xanthan, have very poor styling. For example, formulation 17 contains 1.0% xanthan, but no "styling polymer" and has "very poor" styling properties. In comparison, comparative formulations 18-20 have good to excellent styling properties.

Applicants submit that the xanthan gum present in the compositions of Sajic would not fix hair such that it would exhibit at least 80% curl retention in view of the other ingredients present. To support such claim, Applicants respectfully request that the enclosed declaration under Rule 132 (37 C.F.R. §1.132) of Dr. John Leighton be entered. Dr. Leighton has extensively worked in the area of cosmetic products, particularly hair fixatives. Under Dr. Leighton's supervision and guidance, Formulation 17 of Sajic was prepared

and compared to the composition of the present application. The experiment shows that the formulation of Sajic has only 46% curl retention. In contrast, the presently claimed compositions have over 80% curl retention as evidenced in Example 3 of the present application.

The Examiner was not persuaded by the declarations as only one example was taken out of each reference and allegedly no comparative data or unexpected results were provided to overcome obviousness.

To begin, it is necessary to show superiority only over the closest example in the prior art. Example 3 of JP 11-236310 was selected as the closest art taught in such reference. As noted by the examiner, the present invention teaches hair cosmetic compositions which includes "creams" as stated at page 4, lines 15-19. The JP reference exemplifies emulsions (examples 1 and 4), toilet water (example 2), cream (example 3), and cleansing gel (example 5). A cream is the only exemplified formulation of the JP reference which is allegedly also taught in the present invention, though Applicants maintain that the cream of the JP reference is a skin cream, not a hair cream. Thus, superiority has been shown over the closest art example.

Example 17 of Sajic was used as it is the only formulation that contains only xanthan gum without a second fixative polymer. Claim 1 claims a hair cosmetic composition comprising a fixative effective amount of xanthan gum. No other ingredients are required. Thus, this is the closest example to the present invention.

In the Leighton Declaration, it is specifically stated that Example 3 of the application shows the comparison to the reference formulations. The Examiner has stated that the comparison is unpersuasive as the invention example includes xanthan gum and various fixative resins such as acrylate copolymers and the reference examples do not contain such resins. Thus, the Examiner concludes the poorer curl retention is likely due to the lack of this second fixative.

Applicants would like to point out that Example 3 of the present application uses formulation with xanthan only (no second polymeric resin),

Formula 13 (1% xanthan) and Formula 12 (2% xanthan). Both of these have over 90% curl retention compared to the less than 50% curl retention of the art references. Thus, the comparison is valid and shows the superiority of the present invention over the art.

In view of the foregoing, Applicant submits the Application is now in condition for allowance and respectfully requests early notice to that effect.

Respectfully submitted,



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